GOVERNMENT OF INDIA
DEFENCE
LOK SABHA

UNSTARRED QUESTION NO:4994
ANSWERED ON:16.12.2016
Indigenously Developed SONARS
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Will the Minister of DEFENCE be pleased to state:

(a) whether the Government has formally inducted four types of indigenously developed SONARS that will boost its underwater surveillance capability recently;

(b) if so, the details thereof;

(c) whether this will give fillip to India's quest for self-reliance in this critical area of technology; and

(d) if so, the details thereof?

Answer

MINISTER OF STATE (DR. SUBHASH BHAMRE)
IN THE MINISTRY OF DEFENCE
????? ????? ?????? (??. ????? ?????)

(a) to (d): Yes, Madam. Defence Research and Development Organisation (DRDO) has developed many systems for Indian Navy. Some of the major systems are Heavy Weight Torpedo (Varunastra), Advanced Torpedo Defence System (Mareech), Multi Influence Ground Mines, etc. Recently, on 18th November 2016, Kochi based Naval Physical Oceanographic Laboratory (NPOL) of DRDO, has handed over the following four naval systems to Indian Navy:-

â€¢ Abhay (Compact Hull-Mounted Sonar for Small Ships & Shallow Water Crafts): Induction of Abhay (by replacing the vintage Russian sonar) enables indigenous sonar system to be installed on small ships, thereby enhancing the ASW surveillance capability of the fleet to smaller vessel, like Shallows Water Crafts, Light Frigates & Patrol Vessels, which was hitherto limited to frigates and destroyers.

â€¢ HUMSA-UG (Upgrade for the Hull-Mounted Sonar Array (HUMSA) Series of Sonar Systems for Ships): It enables smooth upgrade of the capabilities of the indigenously-developed legacy Sonar System HUMSA, by drastically minimizing the existing hardware and addressing technology obsolescence issues, which is currently operational on-board on 18 ships.

â€¢ NACS (Near-field Acoustic Characterization System (NACS) for Ship Sonars): It provides a simple and operationally efficient means to determine the frequency-dependent 3-D transmission and reception characteristics of the hull-mounted sonar aiding in the optimum performance and maintenance of the sonar.

â€¢ AIDSS (Advanced Indigenous Distress Sonar System (AIDSS) for Submarines): It is used to signal that a submarine is in distress and thereby enable quick rescue and salvage. It is a life-saving alarm system designed to transmit sonar signals of pre-designated frequency and pulse shape in an emergency situation, so as to attract the attention of Rescue Vessel in the vicinity.
The extent to which capability of the Indian Navy will get a boost with the induction of these systems are:
Three systems of Abhay are slated for installation on the Abhay Class of Ships. 7 systems of HUMSA-UG are proposed for installation on the Teg Class G- Class and R-Class ships. 4 systems of NACS are proposed for the Kolkata Class of Ships. 9 systems of AIDSS are planned for the Sindhu Class Submarines (EKM Submarines). Induction of these Systems will increase the underwater surveillance capability of Indian Naval ships. All these Systems are to be productionised in India.

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